

510(k) Summary

This summary of 510(k) safety and effectiveness information is being submitted in accordance with requirements of 21 CFR Part 807.92.

Date: JAN. 7, 2013

Company and Correspondent Making the Submission:

Name – Viewworks Co., Ltd.

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Seongnam-si, Gyeonggi-do
462-736, South Korea

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Contact – Ms. Sungwhie Kim

Official website – <http://www.viewworks.com>

Proposed Device:

Trade/ Proprietary Name	: ViVIX-S Wireless
Common Name	: Digital Flat Panel X-ray Detector
Classification Name	: Solid State X-ray Imager
Product Code	: MQB
Device Class	: 2
Regulation Number	: 892.1650

Predicate Device:

Manufacturer	: Viewworks Co., Ltd.
Trade/ Proprietary Name	: Digital Flat Panel X-ray Detector
Classification Name	: Solid State X-ray Imager
Product Code	: MQB
Device Class	: 2
510(k) Number	: K120020

Description:

The ViVIX-S Wireless is a digital X-ray flat panel detector which has 35.8cm x 43cm (FXRD-1417WA, FXRD-1417WB) imaging area and communicates via not only the wireless communication feature (IEEE 802.11a/b/g/n) but also wired communication feature (Giga-bit Ethernet communication method by connecting to a tether cable) optionally.

The device intercepts X-ray photons, and the scintillator emits visible spectrum photons that illuminate an array of photo (a-Si)-detectors that create an electrical signals. After the electrical signals are generated, it is converted to a digital value, and an image will be displayed on the monitor.

This device should be integrated with an operating PC and an X-Ray generator to utilize as digitalizing X-ray images and transfer for radiography diagnostic.

Advanced digital image processing allows considerably efficient diagnosis, all kind of information management, sharing of image information on network.

Intended use:

The ViVIX-S Wireless is indicated for digital imaging solution designed as a general radiographic system for human anatomy. It is intended to replace film or screen based radiographic systems in all general purposes of diagnostic procedures. It is not to be used for mammography.

Comparison with Predicate Device:

The predicate device (ViVIX-S) and candidate device (ViVIX-S Wireless) share most of primary product specifications including intended use, technology, material, and imaging principle, etc. Difference lies in the means of connectivity. While predicate device provides only a wired connection between the detector and System Control Unit (SCU), the candidate device supports both wired and wireless connections. The wireless functions that are newly added to the candidate device aim to promote less restricted use of the imaging system. Beside the connection methods, there are also several differences of minor significance. For example, the candidate device is offered only in 14" x 17" while the predicate device comes in 17" x 17" and 14" x 17".

Safety, EMC and Performance Data:

▪ Electrical safety and EMC testing

Electrical, mechanical, environmental safety and performance testing according to IEC 60601-1 was performed, and EMC testing was also conducted in accordance with IEC 60601-1-2. All test results were satisfactory.

▪ Non-clinical study

The following non-clinical studies have been performed and the results have shown that the ViVIX-S Wireless is substantially equivalent to the predicate devices on the Market (ViVIX-S).

-Detective quantum efficiency (DQE), Quantum limited performance, Modulation transfer function(MTF), Effects of aliasing, Sensitivity linearity, Lag(Erasure thoroughness), Change in detection sensitivity, Dose requirement and reciprocity changes, Stability of device characteristics with time, Uniformity of device characteristic, Noise power spectrum(NPS), Spatial resolution, Minimum dose, Image Acquisition time, & Black level

▪ Clinical study

A concurrence study of 30 clinical images was conducted to compare the performance of the ViVIX-S Wireless to that of the predicate device (K120020). There was no significant difference between the images of the ViVIX-S Wireless and those of the predicate device.

Conclusions:

Based on the robust set of results from the non-clinical and clinical studies that have been performed, the ViVIX-S Wireless has been found to be substantially equivalent to the predicate device as well as found to be a safe and effective X-ray imaging system.

END



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Center – WO66-G609
Silver Spring, MD 20993-0002

February 1, 2013

Viewworks Co., Ltd
C/O Pricilla Chung
Official Correspondent
LK Consulting Group USA, Inc.
951 Starbuck St., Unit J
FULLERTON CA 92833

Re: K122865

Trade/Device Name: ViVIX-S Wireless
Regulation Number: 21 CFR 892.1680
Regulation Name: Stationary x-ray system
Regulatory Class: II
Product Code: MQB
Dated: January 8, 2013
Received: January 15, 2013

Dear Ms. Chung:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

Sean M. Boyd -S for

Janine M. Morris
Director, Division of Radiological Health
Office of In Vitro Diagnostics
and Radiological Health
Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number (if known): K122865

Device Name: ViVIX-S Wireless

Indications for Use:

ViVIX-S wireless is indicated for digital imaging solution designed for general radiographic system for human anatomy. It is intended to replace film or screen based radiographic systems in all general purpose diagnostic procedures. Not to be used for mammography and/or for fluoroscopy.

Prescription Use X
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use _____
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of *In Vitro* Diagnostics and Radiological Health (OIR)

Sean M. Boyd -S

(Division Sign Off)

Division of Radiological Health

Office of *In Vitro* Diagnostic and Radiological Health

510(k) K122865